

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of )

)

Amendment of Parts 1, 2, 22, 24, 27, 90 and )  
95 of the Commission's Rules to Improve  
Wireless Coverage Through the Use of )  
Signal Boosters )

WT Docket No. 10-4

**COMMENTS OF PUBLIC KNOWLEDGE AND THE NEW AMERICA  
FOUNDATION**

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Public Knowledge and the New America Foundation (“PK and NAF”) support both consumer choice and the responsible use of mobile wireless signal boosters. PK and NAF agree with the Commission that if properly designed and certified, mobile signal boosters have the potential to greatly benefit the public while automatically providing sufficient protection against harmful interference. PK and NAF agree with the Commission’s proposal that mobile signal boosters should be classified as Section 307(e) devices and authorized without an individual license for use on any or all networks. Classifying these devices under section 307(e) would “provide the most beneficial approach for enabling operation of signal boosters,”<sup>1</sup> by increasing the availability and utility of boosters to the public, promoting competition in both the booster and wireless service provider markets, and making the most efficient use of the booster technology.

**I. WIRELESS BOOSTERS INCREASE THE SCOPE AND UTILITY OF WIRELESS BROADBAND SERVICES FOR CONSUMERS.**

PK and NAF agree with the Commission’s assessment of the benefits that the use of wireless signal boosters would provide for the general public. The responsible use of mobile signal boosters will ultimately advance the FCC’s goals outlined in the National Broadband Plan, specifically in the areas of universal broadband access, market competition, public safety and homeland security.<sup>2</sup> As the Commission stated in its *Strategic Plan*, wireless boosters will advance the Commission’s universal broadband goal by expanding network coverage and increasing network performance in both rural

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<sup>1</sup>Amendment of Parts 1, 2, 22, 24, 27, 90 and 95 of the Commission’s Rules to Improve Wireless Coverage Through the Use of Signal Boosters, *Notice of Proposed Rulemaking* (“NPRM”), MB Docket 10-4, at ¶ 32 (Apr. 6, 2011), available at <http://fjallfoss.fcc.gov/ecfs/document/view?id=7021686520>.

<sup>2</sup> See *id.* at ¶ 11 (citing *Federal Communications Commission Strategic Plan 2009 – 2014* at 5, available at <http://www.fcc.gov/omd/strategicplan/#goals> (last visited Aug. 24, 2010))

areas that face gaps in coverage<sup>3</sup> as well as urban areas where signal penetration is an issue.<sup>4</sup>

Responsible use of wireless boosters will also improve competition in the market for wireless services. If boosters are made widely available through competing third-party manufacturers and retailers, wireless startups constrained by a lack of spectrum will be better able to compete with the larger networks. As the Commission has explained:

By bridging gaps in wireless carriers' coverage areas, signal boosters may also give consumers, particularly rural consumers, additional choices among wireless providers. Such increased competition may benefit consumers through lower prices and increased variety in service offerings.<sup>5</sup>

If competing providers make wireless boosters available to the public at affordable prices, consumers will be able to enjoy a higher quality of service from their current providers in instances where the current provider's network fails to provide comprehensive coverage.

Additionally, mobile wireless boosters will benefit public safety and homeland security interests. As noted by the Commission, better network coverage and performance through boosted signals will allow for faster communication. Such enhanced communication, including better carriage of 911 and E-911 calls during emergencies and crises, would serve the public interest.<sup>6</sup>

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<sup>3</sup> *Id.* at ¶ 1 (“Signal boosters are part of the solution to addressing coverage gaps in rural areas.”).

<sup>4</sup> *Id.* (“Signal boosters can also mitigate service gaps in difficult-to-serve building environments . . .”).

<sup>5</sup> *Id.* at ¶ 11.

<sup>6</sup> *Id.* at ¶ 1-2 (“[S]ignal boosters can provide public safety benefits, for example, by enabling the public to connect to 911 in areas where wireless coverage is deficient or where an adequate communications signal is blocked or shielded.”)

## **II. THE COMMISSION’S PROPOSED SAFEGUARDS WILL PREVENT THE RISK OF HARMFUL INTERFERENCE CAUSED BY WIRELESS BOOSTERS.**

PK and NAF support the Commission’s proposed safeguards for limiting the potential of harmful interference caused by mobile wireless boosters.<sup>7</sup> Requiring boosters to automatically self-monitor and adjust their power levels in order to prevent harmful interference - as well as requiring boosters to automatically shut down if their operation exceeds the Commission’s applicable technical parameters - will properly deal with interference concerns.<sup>8</sup> Furthermore, if these built-in safeguards are implemented and followed, it will be unnecessary to require mobile boosters to be registered with a national clearinghouse prior to operation, allowing consumers to avoid the expense and burden of registration.<sup>9</sup> The proposed device certification requirements strike the appropriate balance between the interests of consumers, licensees and third-party device makers and marketers, and should therefore be adopted.<sup>10</sup>

## **III. CLASSIFYING MOBILE WIRELESS BOOSTERS UNDER § 307(e) WOULD BE THE MOST BENEFICIAL OPTION FOR THE PUBLIC.**

Classifying mobile wireless boosters under § 307(e)<sup>11</sup> would allow the devices to be sold directly to consumers independently from wireless carriers. Keeping wireless boosters untethered from any single wireless carrier or vendor (“carrier agnostic”) would “provide the most beneficial approach for enabling operation of signal boosters”<sup>12</sup> by increasing the boosters’ public utility, and better facilitating competition in both the

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<sup>7</sup> *Id.* at Appendix A, § 95.1623.

<sup>8</sup> *See id.* at ¶ 36-37.

<sup>9</sup> *See id.* at ¶ 65-66 (“[W]e are mindful of the burden a registration requirement might create for consumers.”).

<sup>10</sup> Recognizing that fixed wireless boosters present a potentially greater risk of interference, PK and NAF would support the national registration of fixed boosters as a less intrusive alternative to carrier tying.

<sup>11</sup> 47 U.S.C. § 307(e) (2004).

<sup>12</sup> *NPRM*, MB Docket 10-4, at ¶ 32.

booster and wireless service provider markets. Conversely, classifying boosters under a modified version of 47 C.F.R. § 1.903(c) would nest authorization for signal booster use *solely* under existing carrier licenses.<sup>13</sup> Tying booster use to an individual wireless carrier license would harm consumers by negating many if not all of the benefits that a free and competitive market for compliant boosters will provide.

**A. Keeping mobile wireless boosters untethered to a wireless carrier would increase the devices' utility to the public.**

Allowing consumers to purchase and use boosters independently from their individual wireless carriage agreements will increase the boosters' overall utility. For instance, if boosters remain carrier agnostic, a consumer will be able to switch between wireless carriers and use his/her old booster on the new network. This would eliminate the need for redundant booster purchases, saving consumers money and reducing the boosters' environmental footprint.<sup>14</sup> In addition, a single carrier agnostic booster could be shared between family members who use different wireless carriers, promoting efficiency and reducing costs.<sup>15</sup> Lastly, if a consumer is experiencing an emergency outside of his/her network range, a booster that can access and amplify *all* carriers' signals will better allow him/her to make an emergency call on another network (911 calls are carrier-free), whereas a booster that is only authorized to amplify a *specific* carrier's signal will be less useful in such an emergency.

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<sup>13</sup> 47 C.F.R. § 1.903(c) ("Authority for subscribers to operate mobile or fixed stations . . . is included in the authorization held by the licensee providing service to them.")

<sup>14</sup> See Product details - Overview for "Wilson Sleek (815226)" mobile booster, [http://www.wilsonelectronics.com/ProductDetails.aspx?Product=16&title=Sleek+\(815226\)&Category=7](http://www.wilsonelectronics.com/ProductDetails.aspx?Product=16&title=Sleek+(815226)&Category=7) (last visited Jul. 12, 2011); see also Review: *The Wilson Sleek: The Best Portable Cell Signal Booster*, <http://gadgetu.net/review-the-wilson-sleek-the-best-portable-cell-signal-booster/> (last visited Jul. 12, 2011) (single mobile booster amplified signal for a variety of phones on different networks).

<sup>15</sup> See *id.*

**B. Keeping mobile wireless signal boosters untethered to a wireless carrier would positively impact competition in both the booster and the general wireless market, driving down prices for consumers.**

Keeping mobile wireless signal boosters carrier agnostic will be beneficial to both the wireless booster market as well as the wireless carrier market, and these benefits are likely to then be passed onto the public. If wireless boosters remain carrier agnostic, booster manufacturers will be able to create a single booster that operates on many if not all carrier network frequencies. Simplifying booster designs will lower the costs of manufacturing, which will in turn lower the prices of boosters for consumers in a competitive market. Lowering manufacturing costs will also allow new entrants to compete in the booster manufacturing industry, increasing competition and further lowering prices. Conversely, authorizing devices to amplify only the frequencies licensed by the FCC to the wireless carrier would lead to small-batch design, production and marketing of frequency-specific and incompatible signal boosters for each network.

In addition to positively affecting the booster manufacturing market, keeping wireless signal boosters carrier agnostic would also preserve competition and service in the wireless *carrier* market. As noted above, the introduction of signal boosters generally will enhance competition by allowing smaller wireless carriers constrained by a lack of spectrum to partially compensate for their smaller networks by selling or encouraging customers to purchase boosters.

However, if boosters become tied to an individual carrier's network, the benefits of the devices for these smaller (often rural and regional) wireless carriers will all but disappear. If each booster was carrier- or frequency-specific, manufacturers might only create devices to work on the two or three major carriers with the largest customer base.

Smaller carriers would have difficulty convincing booster manufacturers to develop a specialized booster designed for their network. Instead, manufacturers would be more inclined to produce boosters that work on the larger carriers' networks, because the major carriers would cover a much larger portion of the potential booster-buying population.

Even if a manufacturer agreed to create a specialized booster for the small carrier, retailers would be less likely to stock the device, because the market for such boosters would be comparatively small. Consumers trying to purchase a booster for a small carrier's network would have a hard time finding a booster that works with their carrier's network. Instead of a standardized product, confusion and exclusion would become the norm rather than the exception. As a result, tying boosters to a single network signal will not only reduce competition, but will also add to the costs and constraints faced by consumers both in finding a compatible booster and in switching wireless service providers.

The mobile handset market already suffers from a number of problems associated with carrier exclusivity.<sup>16</sup> Exclusive agreements between carriers and handset manufacturers disadvantage small carriers unable to offer popular handsets, and allow carriers with exclusive deals on the most advanced and appealing handsets to charge exorbitant prices for both their wireless services and the handsets themselves.<sup>17</sup> The Commission's policies should therefore seek to avoid similar anti-consumer practices with regards to wireless boosters.

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<sup>16</sup> Rural Cellular Association, *Petition for Rulemaking Regarding Exclusivity Arrangements Between Commercial Wireless Carriers and Handset Manufacturers*, Docket RM-11497 (May 20, 2008).

<sup>17</sup> *Id.* at 2 ("For many consumers, the end result of such exclusive arrangements is . . . higher prices for the services and accessories available with the desired handset, having to agree to unusual (and undesirable) terms and conditions of service, and having to pay a premium price for the handset because the market is void of any competition for the particular handset.")

Respectfully submitted,

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